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BULGARIA'S ANNUAL CAPACITY TO PAY REPARATIONS

Description

An estimate, based on analysis of probable postwar production and import and export figures, of the amount Bulgaria will be able to devote to annual reparations payments out of current peace-time output.

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TABLE OF CONTENTS

Page

Summary iii

I Introduction 1

II National Income and War Expenditures as an Index of Bulgaria's Capacity to Pay 2

- A National Income and Total War Expenditures 2
- B An Index of Bulgaria's Capacity to Produce Income above Subsistence Requirements 3
- C The Nature of Bulgaria's Net Contribution to Germany 6
- D Estimate of the Probable Productivity in Bulgaria of the Resources Relinquished by Germany and the Bulgarian Army 8
- E Bulgaria's Manpower as an Item Available for Export 10

III Bulgaria's Export Potential 11

- A Trend of the Value of Bulgaria's Exports and Imports of Goods, 1930 - 42. 11
- B Types of Products Exported by Bulgaria, 1936 - 39 11
- C Destination of Bulgaria's Exports, 1936 - 40 13
- D Estimate of Bulgaria's Capacity to Produce Exports of Goods 14

IV Bulgaria's Import Requirements 17

- A Trend of Value of Bulgaria's Imports 1930 - 42 17
- B Types of Commodities Imported by Bulgaria, 1936 - 39 17

Page

C Source of Bulgaria's Imports, 1936 - 40 18

D Estimate of Bulgaria's Import Requirements 19

V Bulgaria's Capacity to Pay Out of Current Income 23

A The Potential Capacity 23

B The Domestic Transfer Problem 25

C Prewar Foreign Capital in Bulgaria 28

VI Conclusion 30

Summary

1. In 1940 Bulgaria devoted resources valued at approximately 58,000,000 1944 dollars, equivalent to 10 percent of total national income in that year, to the Bulgarian army and to the German war effort together. These estimates apply to Bulgarian territory limited to its pre-war boundaries but including Southern Dobrudja.

2. The special purposes to which these resources were applied during the war resulted in some overvaluation of their output. Applied to the production of such peacetime goods as would presumably be desired by reparation claimants their output probably would approach 48,000,000 1944 dollars. Pre-war Bulgaria can produce, therefore, an annual income in excess of consumption requirements equivalent to 50 to 55 million 1944 dollars.

3. A better estimate of Bulgaria's capacity to produce surplus goods and to transfer such output to foreign claimants can be secured from an examination of foreign trade data. If the Bulgarian peasants continue to produce industrial or cash crops, the export potential might approximate 5.5 billion Leva for the year 1945-46.

4. Bulgaria's requirements for imported goods and services for the same year are estimated at 3.5 billion Leva, leaving a net export surplus of 2 billion Leva, equivalent to 27,000,000 1944 dollars.

5. The task of effecting internal transfers of income will be a difficult one in view of the inflationary processes already at work in the Bulgarian economy. Primarily on the basis of the government's record of financing war expenditures, it is concluded that the government will be able to obtain and to transfer an annual net export surplus equivalent to 20 to 25 million 1944 dollars.

6. These estimates of Bulgaria's annual capacity to pay reparations have been predicated on the assumption that neither portable capital goods nor Bulgarian laborers will be removed from that country. In addition it is assumed that no fundamental change in the organization and functioning of the pre-war Bulgarian economy will take place.

BULGARIA'S ANNUAL CAPACITY TO PAY REPARATIONS

I. INTRODUCTION

In this study of Bulgaria's annual capacity to pay reparations out of current production no account is taken of the possibility of capital transfers. The amount of portable wealth is, however, extremely limited in a country like Bulgaria which has a backward pastoral and agrarian economy and an undeveloped industry. The meagerness of the major items of portable wealth is indicated in Appendix A. This study is, therefore, confined to Bulgaria's capacity to produce income above subsistence requirements and to transfer that surplus to the recognized claimants.

Two attempts are made to measure Bulgaria's capacity to pay. First, Bulgaria's war expenditures, including her net contribution to the German war economy, are compared with her national income. Second, estimates are made of the extent to which Bulgaria's exports can be maximized and her imports minimized. The difference, adjusted for necessary changes in invisible exports and imports, will constitute Bulgaria's current transferable output.

II. NATIONAL INCOME AND WAR EXPENDITURES AS AN INDEX OF BULGARIA'S CAPACITY TO PAY

A. National Income and Total War Expenditures

Bulgaria, even by European standards, is an extremely poor country. Table 1[1] indicates that the estimated national income of Bulgaria after rising from 370 million 1939 dollars in 1926 to 452 millions in 1931, thereafter remained at a fairly stable, but low level of less than 450 million 1939 dollars per year. The population of the country increased regularly from year to year, with the result that the per capita annual income seldom exceeded 75 dollars. It is noteworthy that the territorial expansion of Bulgaria in 1941 did not bring a proportionate increase in the national income.[2]

The amount of Bulgaria's expenditures on the military establishment more than doubled between 1935 and 1939. As indicated in Table 2, such expenditures advanced from 3.3 percent of the national income in 1935 to 6.6 percent of the national income in 1939. From 1940 to 1943, the strength of the Bulgarian army continued to increase, but the present estimates of expenditures on the army have been adjusted to reflect the fact that the larger part of the army's equipment was purchased prior to 1940.[1] During the period 1940-1943, however, Bulgaria's expenditures on behalf of the German war effort overshadowed the expenditures on the Bulgarian army. For the four-year period 1940-1943, Bulgaria probably contributed 21.9 billion Leva of services and materials to Germany's war effort. In addition, an estimated 24.2 billion Leva was spent on the Bulgarian military establishment during the same period. The draft on current output increased from 8.8 percent of the national income in 1939 to 14.7 percent of national income in 1941. For a country whose economy produces an annual output which barely covers basic needs, the application of almost 15 percent of the annual production to non-consumption purposes represents an enormous mobilization of resources.

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[1] All of the tables are appended to the report.

[2] Southern Dobrudja was ceded to Bulgaria as a result of the Bulgarian-Rumanian Treaty of 7 September 1940. The area of Southern Dobrudja is estimated to be 2,980 square miles and its population 320,000 in 1940. The Greek and Yugoslav territories of Thrace and Macedonia were occupied by Bulgarian forces in April and May 1941. The area of these territories is estimated at 11,000 square miles and their population at 1.3 millions. League of Nations, Statistical Yearbook 1941-42, p. 21.

B. An Index of Bulgaria's Capacity to Produce Income above Subsistence Requirements

The amount of Bulgaria's national income applied to the war effort and to achieving an export surplus in 1940 can be stated in fairly precise terms. The amount of this income so devoted in relation to total income produced in that year may be taken to indicate the maximum amount of income above basic needs which Bulgaria can produce.[1]

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[1] Under the Treaty of Neuilly in 1919, the Bulgarian army was reduced to 1,000 officers and 19,000 men, voluntarily enlisted for twelve consecutive years. A reorganization of the army was completed by 1936, the army expanded, and the Treaty evaded. The accomplished fact of Bulgarian rearmament was formally recognized by the Balkan Entente powers in the Treaty of Salonika in 1938. Between 1939 and 1943, at least eight reserve divisions had been added to the ten divisions organized before 1939. CID 59995.

The year 1940 is an appropriate one to use for such an investigation because (a) cooperation with Germany was well advanced in that year, (b) the Bulgarian economy was operating within its pre-war frontiers during most of the period,[2] and (c) the Bulgarian economy achieved full mobilization during 1939 and the results of full mobilization were available in 1940.

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[1] The consumption standards in Bulgaria are not the lowest in Europe, but they are far below the standards in Western European countries. As a practical matter, it will be impossible to force the peasants to give up more foodstuffs than they did in 1940.

In 1940, the amount of private net capital formation in Bulgaria was negligible. For the period 1936-40, reinvestment of corporate profits was less than in the period 1931-35. Investment in buildings increased slightly in the period 1936-40 compared to the period 1931-35, but the increased Leva amount was more than offset by the threefold increase in real estate prices. Owing to the scarcity of raw materials which developed in 1940, savings accumulated in the banks and the peasants hoarded coins and currency. Zeitschrift der Bulgarischen Volkswertschaftlichen Gesellschaft (1942) p. 51.

[2] Southern Dobrudja (area 2,980 square miles and population of 320,000) was obtained from Rumania in September 1940. This is not a rich area and it is doubtful whether the income of this territory is included in Bulgaria's income statistics for 1940. Although Bulgaria obtained Southern Dobrudja with the aid of German arms, Britain did express approval of the transfer. Bulgaria, therefore, can present some justification for retaining Southern Dobrudja. Bulgaria Basic Handbook (1943) Part I, p. 9.

The extent to which old Bulgaria diverted her resources to her own and Germany's military efforts in 1940 are indicated below:

Net contribution to Germany[a]	1,512 million Leva
Estimated expenditures on Bulgarian army[a]	3,152 million Leva
Net export balance of goods and services shipped to countries other than Germany[b]	299 million Leva
Total, above expenditures	4,893 million Leva

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[a] These estimates are taken from Table 2.

[b] The item, "net contribution to Germany," includes Bulgaria's visible exports to Germany less visible imports to Germany. In addition, the item includes all services -- labor, transportation, and communications -- supplied by Bulgaria to Germany as well as foodstuffs and materials supplied to German agents and technicians in Bulgaria. Services were supplied largely to Germans in Bulgaria, although 15,000 Bulgarian laborers in 1940 worked in Germany. For a more detailed explanation see the section following.

Bulgaria's visible import balance from Germany in 1940 was 737 million Leva. Bulgaria in 1940, according to Table 5, had a commodity net import balance of only 8 million Leva. Consequently Bulgaria's merchandise net export balance with countries other than Germany was 729 million Leva.

Bulgaria's net invisible imports, primarily technical and financial services, have been appraised at 500 million Leva, leaving 229 million Leva as the net export balance for both visible and invisible foreign trade items between Bulgaria and all other countries except Germany. The net amount of Bulgaria's invisible imports may be overstated according to the relative amount supplied by German technicians. The cost of German services would be included in the estimate of Bulgaria's net contribution to Germany.

A total of 4,893 million Leva or 10 percent of old Bulgaria's total national income in 1940, therefore, was available for purposes other than supplying the basic needs of the population.

This amount is the equivalent of 58,600,000 1944 dollars. This represents the amount of output which Bulgarian resources proved capable of producing over and above the basic needs of the population.

For a number of reasons, however, this amount may overstate Bulgaria's capacity to produce a surplus of goods and services of the sort usually made and desired in peacetime. To measure the amount of this overstatement it will be necessary to consider the composition of Bulgaria's contributions to Germany during the year in question.

C. The Nature of Bulgaria's Net Contribution to Germany

The outstanding fact regarding Bulgaria's net contribution of resources to the German war effort is not its magnitude -- large as that has been -- but the composition of those resources together with the circumstances surrounding their diversion to the German war machine. Labor services, transportation services, some materials, and small amounts of foodstuffs were supplied directly to German technicians and later to the German army occupying and passing through the territory. In addition to these direct contributions, the net increase in the number of Bulgarian laborers at work in Greater Germany between May 1939 and February 1944 was 35,000.[1]

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[1] OSS R and A No. 2523.6. Wages offered Bulgarian workers in Germany were far higher than an unskilled laborer could obtain in Bulgaria. In 1942 a Bulgarian laborer earned about 160 Leva per day in Germany, of which 120 Leva might be sent home. Remittances from Bulgarian workers in Germany were purchased by the National Bank and thereby constituted part of its claims against Germany.

(continued on next page)

These Bulgarian workers were maintained by Germany in that country and only the savings of the laborers were transferred to Bulgaria.

Prior to the occupation of Bulgaria by the Germans, agricultural labor was not fully utilized.[1] Germany acquired the use of this partially idle labor resource together with some materials and foodstuffs. Furthermore, and this is of vital importance, after 1940 Bulgaria diverted to Germany all of the available manpower and resources in the territories acquired from Greece and Yugoslavia.

The nature and composition of the resources diverted by Bulgaria to the German war machine were such, therefore, that their magnitude expressed in value terms does not serve as a reliable index of capacity to produce real income within the territory of pre-war Bulgaria. Furthermore, the value of Bulgaria's contribution to Germany does not indicate accurately the productivity of these resources under the conditions likely to prevail in Bulgaria in the post-hostilities period. This is true since the Bulgarian manpower and other services relinquished by the Germans cannot find

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(footnote continued from page 6)

Similarly, funds for the German army expenditures in Bulgaria were provided by the Bulgarian National Bank in return for Reichsmark claims on Germany. CID 47804, pp. 92-93.

[1] Under-employment on the farm is due to the system of farming followed in Bulgaria. The statement in the text, therefore, does not impeach a previous assertion that the Bulgarian economy was fully mobilized in 1939 and 1940.

alternative employment in Bulgaria which will approach in value productivity the amount assigned to their services by the German army.[1]

It is therefore necessary to estimate the probable income-producing capacity which may be obtained from the re-employment in Bulgaria of the resources employed by Germany in 1940.

D. Estimate of the Probable Productivity in Bulgaria of the Resources Relinquished by Germany and the Bulgarian Army

The amounts of resources available, as of 1940, for re-employment in Bulgaria as a result of the departure of the

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[1] It is assumed that the Allies will not use Bulgaria's labor services or army directly in the war against Germany. Recent intelligence reports, however, indicate that this assumption may not be valid. Russia, in particular, may want to use directly in the war effort Bulgarian labor and materials as well as the Bulgarian army. Even if such Bulgarian resources are so employed, it is doubtful whether disbursements for such services can be continued on the lavish scale practised by the Germans without risking the disruption of the Bulgarian economy. As much as Russia may desire to pay prices for Bulgarian services which are as high as those paid by the Germans, such payments are feasible only if the Bulgarian government can find more effective devices to immobilize the excess purchasing power in the country.

Russia may, of course, appraise Bulgarian services at a high figure without actually disbursing funds to laborers. This kind of bookkeeping transaction, however, is not likely to appeal to the individual Bulgarian peasant.

Germans and the demobilization of the Bulgarian army are set forth in Table 4 and Appendix C.

The reappraisal of the probable income-producing capacity in Bulgaria of the resources available for re-employment under peacetime conditions together with the probable reduction in the consumption of goods following the demobilization of the Bulgarian army is attempted in Table 4. The estimated amount of income available for other uses, after consumption standards of 1940 are met, is 4,002.4 million Leva equivalent to 47,975,000 1944 dollars. Although the margin of probable error in an estimate of this kind may be quite large, it does establish the fact that Bulgaria's expenditures in 1940 on its military establishment together with net contributions to the German war effort can be taken as a fairly reliable index of Bulgaria's capacity to produce income in excess of consumption requirements.

On the bases of Bulgaria's expenditures for the war effort in 1940 together with the estimate of the probable amount of income available under peacetime conditions after 1940 consumption standards are met, it is concluded that pre-war Bulgaria can produce 50 to 55 million 1944 dollars of income in excess of consumption requirements.

E. Bulgaria's Manpower as an Item Available for Export

The low value-productivity of gainfully employed Bulgarian labor within the territory of old Bulgaria -- approximately 160-175 1944 dollars per annum -- suggests that this resource might be more profitably employed elsewhere. The net migration of 35,000 workers to Germany during the war period indicates that the export of Bulgarian labor is not unusual. While the productivity of labor is probably almost as low in Greece and Yugoslavia as it is in Bulgaria, the estimated value-productivity of Russian workers is 780 1944 dollars per year.[1] The differential in value output per gainfully employed person is large, but since the desire of the USSR for such direct use of Bulgarian labor is not known, no further examination of this possibility is made here.

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[1] OSS R and A No. 2127.

III. BULGARIA'S EXPORT POTENTIAL

A. Trend of the Value of Bulgaria's Exports and Imports of Goods 1930-1942

During the period 1930-1942 Bulgaria's net export balance on merchandise account amounted to 5,769 million Leva, as indicated in Table 5. Except for the year 1932, a net export balance of merchandise was obtained in each year during the period 1930-1939. This favorable balance on foreign trade account during 1930-39 existed despite the fact that the value of exports declined each year from 1930 to 1935. For the period 1940-42, however, imports of commodities exceeded in value the amount of exports. An unfavorable balance of trade existed during the period even though the value of exports in each of the three years 1940-1942 was greater than in any year during the previous decade. Owing to the net balance of imports of goods over the three year period 1940-1942, Bulgaria's foreign trade statistics for the war years do not reflect accurately the normal trend of Bulgaria's international dealings in commodities.

B. Types of Products Exported by Bulgaria, 1936-39

Approximately 80 percent of the 3,433,000 gainfully employed persons in old Bulgaria in 1934 were engaged in agriculture. Agriculture production in 1940 accounted for almost 70 percent of the national income in that year[1]. The predominance of agriculture in Bulgaria is clearly evident in Table 6 which indicates that tobacco, fruits and vegetables, cereals, and animal produce for food amounted to 85 percent by value of Bulgaria's exports in 1936. Tobacco is by far the most important export product.

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[1] C. I. D. 47805, pp 9-12.

1. Tobacco. Exports of tobacco increased rapidly between 1936 and 1939; the increase in value amounted to 95 percent. Within this period its degree of importance as an export product improved from 33 percent to 41 percent of the value of all exports.

2. Fruits, Vegetables, and Oilseed. The value of exports of fruits, vegetables and oilseeds more than doubled between 1936 and 1939. Fresh grapes and canned grape pulp constituted from one-third to one half of the value of exports in this class. Exports of oilseeds were disappointing in view of Germany's efforts to increase cultivation of sunflower seeds and soya beans for her use.

3. Cereals. Exports of cereals declined in value from 1936-1939, primarily because many Bulgarian farmers shifted to the cultivation of crops with higher cash values. The relative importance of wheat as an export commodity, however, increased during this period.

4. Animal Products for Food. Animal products for food declined in importance from 19.5 percent of the value of exports in 1936 to 11 percent of such exports in 1939. The

decline in absolute and relative importance of this class of export product was due largely to the decline in shipments of meat, dead poultry, and cheese. The value of egg shipments, however, increased from 466 million Leva in 1936 to 512 million Leva in 1939.

C. Destination of Bulgaria's Exports, 1936-40

Bulgaria's exports have moved primarily to Central European markets. In 1936 as indicated in Table 7, almost 48 percent by value of Bulgaria's exports went to Germany. In 1940, although Bulgaria's total exports had increased by 80 percent over the level of 1936, 60 percent of the total exports went to Germany. For the period 1940-42, it is estimated that at least 70 percent by value of Bulgaria's trade was with Germany[1].

In view of the few markets for Bulgaria's exports in the past together with the limited range of products available for export, it may be questioned whether Bulgaria can either find new markets or ship her produce directly to the chief claimants on reparations account, presumably Greece, Russia, and Yugoslavia. Some of Bulgaria's tobacco can be sold on the world market and the foreign exchange thereby acquired can be transferred to claimants on reparation account. In this way, also, triangular trade will be revived with Bulgaria as a participant. Most of Bulgaria's tobacco is of excellent quality suitable for blending in cigarettes.

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[1] Bulgaria, Basic Handbook. Part II, p. 40.

Markets for fresh fruits and vegetables are limited because of transportation factors. Bulgaria's canning industry does not have sufficient capacity to process the exportable fruit and vegetable crops. Russia, however, will probably require fresh and canned fruits and vegetables as well as cereals, eggs, poultry and animal produce, although transportation may be a limiting factor.

D. Estimate of Bulgaria's Capacity to Produce Export Goods

Estimates of Bulgaria's[1] export producing capacity must be based in part on the assumptions that the absolute and relative amounts of acreage planted to cash or industrial crops will be approximately the same as those in 1939 and that crop yield will be at least as good as the average of yields per acre during the years 1936-39. If these conditions are satisfied, Bulgaria could probably export products valued at approximately 5.5 billion Leva in terms of its 1939 purchasing power. The components of this estimate appear in Table 8.

An attempt has been made to avoid over-valuing Bulgaria's exports in 1945. As Tables 7 and 10 indicate, the greater part of Bulgaria's foreign trade was with countries which managed clearing accounts. Germany, in particular, has entered into trade agreements with Balkan countries and has obligated herself to pay higher prices in terms of blocked Reichmarks. Once Germany incurred a sufficient debt to the smaller country, Germany began to raise prices on goods exported to that country. In 1943, for example, Bulgaria raised prices on tobacco shipped to Germany by 60 percent. A German commission decided that the increase amounted to 400 million Leva. Germany countered by raising prices on goods exported to Bulgaria to yield an equivalent amount. Bulgaria was, however, permitted to specify the products whose prices were to be increased.[1]

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[1] Bulgaria's territory is taken to be that within its pre-war frontiers. While it is possible that Bulgaria may be permitted to retain Southern Dobrudja (population about 320,000 in 1940), it is certain that the Southern part of Serbia seized from Yugoslavia in 1941 and the districts of Thrace and Eastern Macedonia taken from Greece in the same year will have to be returned -- probably with indemnification.

Comments on Bulgaria's export potential in the post-war years follow:

1. Tobacco. Bulgaria's prewar production of tobacco varied considerably from year to year; the average annual output approximated 35,000 metric tons of which 75 percent was exported. If the crop is raised, it is likely that the government will be able to requisition the crop. Approximately 86,000 acres and over 100,000 Bulgarian tobacco farms are required to produce a crop of this size.

2. Fruits, Vegetables, and Oilseeds. Cultivation of fruits, vegetables, and oilseeds was greatly extended during the period 1936-42 owing largely to monetary inducements offered to the farmers by the government at the behest of the Germans. There is evidence that the farmers will quickly revert to the raising of cereals if these market crops do not command a sufficient amount of other goods. Improved transportation facilities, moreover are required in order to permit the marketing of fresh fruits and vegetables. During the war however, an infant canning and food processing industry

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[1] MEW, Price Problems in Germany's Foreign Trade. In Weekly Propaganda Extract No. 122 (1944).

developed in Bulgaria. Although dependent on imports of machinery and tinplate, this industry might be expanded in order to increase the export potential of the country.

3. Cereals. Cereals are, of course, the chief crop in Bulgaria. Of the total arable land in Bulgaria (25.75 million acres) only 40 percent is suitable for cultivation and over 70 percent of the cultivated area is under grain crops. The total crop yield for wheat, corn, and rye averaged about 2,000,000 metric tons annually. Less than 200,000 metric tons was available for export. Since the acquisition of grain deficient territory in 1941, Bulgaria's grain exports have declined in quantity. On balance, it is quite possible that Germany has made net contributions to Bulgaria's grain supply. With the loss of the Macedonian territories, however, Bulgaria's grain export potential should improve. World prices for wheat after the war, however, will probably be quite low.

4. Egg and Poultry Products. Egg and poultry production is assumed to remain at the relatively high levels attained in 1939 and 1940. As with the production of fruits, vegetables, and oilseeds, egg production in Bulgaria will be maintained only if the farmer finds it to his advantage to do so. Actual production can also be easily concealed from government officials.

5. Livestock. For the first few years, livestock production as well as the supply of hides and skins will be considerably below the levels attained in 1939 and 1940. Fodder and animal feeds in Bulgaria have been in extremely short supply for the past three years and it is doubtful whether herds and flocks have been maintained.

The estimate of 5.5 billion Leva as the export potential of Bulgaria which was derived from an examination of both prospective crop yields and from the record of her exports of commodities is, it must be emphasized, based on the assumption that the pre-war structure of production in the country will continue and that the Bulgarian farmer will respond to price incentives. This response will be determined not only by the presence of sound governmental monetary and fiscal policy, but also by the presence of some foodstuffs and consumer goods on the market.

IV. BULGARIA'S IMPORT REQUIREMENTS

A. Trend of the Value of Imports, 1930-42

Table 5 indicates that the course of Bulgaria's imports followed closely that of exports for the period 1930-39.. During years of large exports, Bulgaria permitted the importation of a greater value of commodities. For the period 1940-42 taken as a whole, however, Bulgaria imported more goods by value than were exported.

In addition to commodities, Bulgaria also imported considerable quantities of technical and financial services, shipping services, insurance, and capital. Few invisible items were exported from Bulgaria consequently Bulgaria's net export balance for international trade in goods and services is not fully presented by the record of merchandise exports and imports.

B. Types of Commodities Imported by Bulgaria 1936-39

Lacking important numerals other than lignite and entering the elementary stage of industrialization, Bulgaria required machinery products, iron, steel, and non-ferrous metals as well as other industrial materials. The value of machinery and allied products imported by Bulgaria, as indicated in Table 9, increased from 524 million Leva in 1936 to 1,373 million Leva in 1939, an increase of 163 percent by value. Purchases of machinery abroad accounted for 16.5 percent of all imports in 1936 and 26.5 percent in 1939. About two-thirds of all machinery imported was for industrial purposes, chiefly for metal working, textiles, and wood.

In addition to heavy imports of industrial machinery, Bulgaria was also dependent on foreign industrialized countries for semi-fabricated and fabricated products as well as for such industrial raw materials as petroleum and heavy chemicals. The value of metals imported in 1939 for example was 54 percent greater than in 1936 when this category accounted for over 20 percent of all imports. Within this category, purchases of railway materials abroad increased fivefold and substantial increases on the purchase of crude iron, copper, and copper goods also occurred.[1]

Purchases of textiles abroad in 1939 were less than in 1938 and were about the same value of similar imports in 1936. Larger quantities of raw cotton and yarn as well as raw wool were imported in 1938 and there has been a tendency for imports of finished textile products to decline.

The operation of the Bulgarian industrial economy is also completely dependent on imports of petroleum products, lubricants and heavy industrial chemicals. The health of the population in the malarial districts, moreover, is related in part to imports of quinine and other pharmaceutical products.

C. Source of Bulgaria's Imports, 1936-1940

Table 10 indicates that Bulgaria's purchases abroad were relatively even more concentrated in Germany and Austria than were her exports to those countries. Both of these countries, of course, operated clearing accounts and it is quite clear that Bulgaria took considerable pains to import as much or even more by value than was shipped to such countries. Free exchange (i.e. foreign exchange which could be administered at the will of Bulgaria) was used primarily to service foreign-debt obligations. The effect of these practices tended to exclude the products of free-exchange countries from Bulgarian markets and forced that country increasingly to rely on Germany, Austria, and Czechoslovakia for vitally needed machinery and industrial products as well as for armaments.

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[1] Bulgaria's classifications of imports must be interpreted cautiously. Relatively large amounts of armaments were imported during this period and probably were included among machinery and metals.

D. Estimate of Bulgaria's Import Requirements

Bulgaria's imports can be depressed substantially below the levels of 1937-1939. Assumptions regarding the future of the Bulgarian economy must necessarily be made in any estimate of the extent to which the value of imports of industrial raw materials and machinery might be reduced. For purposes of making these estimates it has been assumed that the Bulgarian economy will be permitted to continue its slow advance from a predominately pastoral and rural economy to a balanced agricultural and light industrial economy, but that this process will take place at an even slower rate.

Three factors are offered in support of this assumption. First, an increasing number of the underemployed peasants are remaining on the farm where their productivity is extremely low.

Relative to the size of her population and techniques of cultivation, Bulgaria is certainly overpopulated.[1] In addition to supplying more gainful occupation for surplus agricultural laborers, it also seems expedient to permit Bulgaria to obtain raw materials with which the existing industrial plant can be operated.[2] Finally, industrial products available for internal distribution would materially aid the Bulgarian government in obtaining control of products suitable for export. The Bulgarian peasant has acquired years of experience in concealing his produce from his own government officials and from the Germans.[3]

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1. Approximately 1.5 millions of a total farm population of 4.0 millions in old Bulgaria were estimated to have failed to produce enough to satisfy their need for food. D. Marriner, Economics of Peasant Farming. London, 1939 p. 88.

2. Moreover, as will be explained below, substantial amounts of foreign capital, mainly German, is invested in Bulgarian industry. If Russia should obtain these ownership claims in partial fulfillment of her reparations bill against Germany, then Russia may determine that the continuance of Bulgarian industry might be a feasible long-term investment prospect. It is recognized of course, that Russia has not been in the practice of investing in foreign industries. Nevertheless, Russia may hold forth the possibility of returning these securities to Bulgaria if her reparation obligations are promptly met.

3. The whole of the 1942 cotton crop, approximately 13,000 metric tons, was requisitioned by the government. Only 20 percent of the crop was actually delivered to the government.

Comments on the estimate of Bulgaria's import potential with respect to specific commodities follow:

1. Machinery, Metals and Vehicles. Both the value of imports in these three categories of goods and the tonnages of such imports were closely examined for the period 1936-40.[1] In Section II, it was estimated that approximately 1 billion Leva of armaments were imported in 1939. It is assumed that the value and tonnages of these imports entered the trade statistics. This factor was considered in the estimate of minimum import requirements for these categories of goods. The overall result reflects the weight attached to this factor. In 1939 Bulgaria imported 2826 million Leva of machinery, metals and vehicles. This amount was reduced to 1747 million Leva or by more than 1 billion Leva. The estimate, then, assumes that the Bulgarian economy operated with the minimum amount of industrial machinery and metals necessary to maintain national income at 45-50 billion Leva.

Machinery imports as a group were reduced by almost 50 percent of the value of such imports in 1939. The value of imports of tractors and agricultural machinery was maintained, but heavy reductions were made in radios and locomotives. Some locomotives were obtained from Germany after 1939 and it is believed that the State Railway system can be maintained with the reduced import of locomotives.

Metals and their products can be reduced drastically only at the risk of seriously crippling the Bulgarian industrial economy. Railway materials have been reduced, but tinplate and copper imports maintained at the 1938 level. A small canning industry has developed in Bulgaria which has aided in the export of fruit and vegetable crops.

Imports of vehicles were reduced by more than 75 percent of the value of such imports in 1939 on the ground that the remaining imports of vehicles will meet replacement requirements. A substantial increase in motor vehicles at this time is not desirable because of the accompanying requirements for imported fuels and lubricants. Motor vehicles in Bulgaria are not equipped to use producer gas.

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[1] The tonnages of Bulgarian imports and exports classified according to commodities appear in the Compass (1943) p. 72.

2. Mineral Oils. Imports of mineral oils cannot be drastically reduced without impeding Bulgaria's industries. Lubricants, particularly, are urgently needed in Bulgaria. The estimate is based on the minimum quantity of 65,000 metric tons of petroleum required to maintain the economy.[1]

3. Chemicals. Bulgaria has no chemical industry. Small quantities of sulphuric acid and caustics are needed by her industry and copper sulphate is vitally necessary in her vineyards.

4. Dyes and Tans. Dyes and tans are required for both the textile and the leather industries. For the first years after the hostilities, Bulgaria, will also need shoes and other leather products which have been in desperately short supply since 1940. Acute scarcity also prevails in rubber and rubber products.

5. Pharmaceuticals. Pharmaceuticals, especially drugs, to combat malaria are required. Bulgaria is completely dependent on foreign sources for all drug products.

6. Fertilizer. No allowance has been made for imports of fertilizers. Prior to 1940, Bulgarian agriculture did not even use manures. The Germans, however, were reported to have sent 10,000 tons of fertilizer to Bulgaria on an experimental basis. In view of the probable crowding of persons on the land, it is suggested that fertilizers will, within a very short time, raise crop yields and exportable surpluses by more than the cost of imports of fertilizer.

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[1] O.S.S. R&A 1839.2

V. BULGARIA'S CAPACITY TO PAY OUT OF CURRENT INCOME

A. The Potential Capacity

In Section II, Bulgaria's war expenditures and contributions to the German war effort were indicated. In Table 4, the amount of income available for reallocation was computed on the assumption that the Bulgarian economy would continue to function at full capacity and the composition of the income stream would not change.[1] On that basis, it has been estimated that the amount of income available for redistribution will be 4002 million (1940) Leva equivalent to 48,000,000 1944 dollars.

In Sections III and IV, estimates were made of the extent to which exports of commodities in 1945-46 could be increased and imports of merchandise depressed. The net export surplus for commodities, again assuming stable government and full employment of resources within the framework of existing techniques, was estimated to be 2.4 billions Leva (1939 value) equivalent to 32,900,000 1944 dollars.

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[1] Bulgaria does not face the problem of reconverting her industry. During the war years, Bulgaria was Germany's gardener and general handyman. It is assumed that Bulgaria will continue to be primarily an agricultural nation.
The crucial element in the assumption is that the farmers will not shift from production of exportable crops to subsistence crops.

Invisible exports and imports for 1945-46 have not been considered in the above estimate. Bulgaria has no invisible exports of consequence.[1] Invisible imports consisted of financial and technical assistance together with student travel abroad. Such technical and financial assistance is urgently needed in Bulgaria. The few available doctors and engineers, for example, have been trained abroad.[2] Foreign assistance will certainly be required to revamp the fiscal and monetary system and to aid in administering the transfers of goods to reparation claimants. The cost of foreign assistance will amount to at least 400 million (1939) Leva or almost 5,500,000 1944 dollars.

Two measurements of Bulgaria's capacity to pay reparations have been used, each with a separate purpose. Table 4 indicates that the peacetime income producing capacity of all the resources previously allocated to war uses will be only 48,000,000 1944 dollars. This is the probable maximum surplus which Bulgaria is capable of producing above minimum standards of maintenance. Of this amount of potential internal surplus income, however, foreign trade statistics indicate that slightly more than 27,400,000 1944 dollars could be transferred to claimants on reparation account.

Succeeding sections discuss further problems which serve to qualify the meaning of these estimates.

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[1] Bulgaria did supply transit services for some goods passing between Germany and Turkey. It is assumed that this traffic will cease.

[2] Bulgaria Basic Handbook. Part I, (1943) p. 32. The telephone system in Bulgaria was serviced by German technicians.

B. The Domestic Transfer Problems

The Bulgarian government must (a) obtain the current output from domestic producers, and (b) transfer such goods or the monetary equivalent thereof to claimants. The second problem has been discussed under the heading of the potential export surplus. For the first few years after the cessation of hostilities, however, the first type of transfer problem appears to be the more difficult. There is the serious question of whether a sufficient degree of stable and orderly economic relations can be restored in order to permit the government to meet its reparation obligations. Inflation is rampant in the country. The government's debt as of July 1943 exceeded 53 billion Leva, with the result that the National Bank's chief assets consist of Bulgarian government bonds and claims on Germany's clearing accounts.

The state's budget is not consolidated. Appropriations and expenditures are made for both an ordinary and extraordinary budget as well as a number of autonomous funds.[1] Similarly, receipts are obtained not only from taxation and loans, but also from several monopolies and government enterprises, including earnings of the National Bank. According to the latest official estimate, the national government spent 94.7 billion Leva under the ordinary and extraordinary budgets between 1939 and September 1943. An additional 27.0 billion Leva were spent under the budgets of different directorates during the same period.[1]

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[1] A detailed and illuminating study of Bulgarian fiscal and monetary practices up to 1930 was made in the study of Bulgaria by Leo Pasvolsky, Bulgaria's Economic Position (Washington 1930) Chapters V, VI, and VII.

As indicated in Table 12, the acknowledged public debt of the national government increased by 30.1 billion Leva between 1939 and the middle of 1943. The entire amount of increase in public debt represented internal borrowings. If the volume of public debt is not understated, Bulgaria's record of war financing, 30 percent borrowing and 70 percent taxation, would appear to indicate a conservative fiscal policy. Thirty billion Leva of additional debt contracted over a 3½-year period, however, represents an enormous burden in a subsistence economy.[2]

The increase in public debt, moreover, has found its counterpart in a huge increase in the volume of National Bank notes and interest-bearing Treasury certificates in circulation. Between 1939 and 1942, the volume of National Bank notes and Treasury certificates in circulation increased by 16,527 million Leva, an amount equal to approximately four times the volume of notes circulating in 1939.[1]

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[1] Statement of Prime Minister on Budget for 1944 (December 1943), Balkan Press Review, Bulgaria, Economic No. 68.

[2] The lowest interest rate in the government's bonds and certificates is 3 percent and many bonds bear 6 percent interest. The burden on the government, however, will be determined by the amount of government bonds held by the National Bank whose earnings revert to the Bulgarian government.

In addition to the increase in note circulation, time deposits and saving accounts increased from 19 billion Leva to 40 billion Leva during the period January 1940 to July 1943.[2] All the elements are present for severe inflation, which is, indeed, under way. By the middle of 1943, a year before Bulgaria's surrender, the wholesale price index had increased 132 percent above the 1939 level. Between 1938 and 1940 real estate value increased threefold.[3]

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[1] CID No. 47804. p. 94. "On 20 May 1943, the National Bank decreed that the special 3 percent Treasury certificates had to be accepted universally as legal tender, at their full nominal value plus accrued interest," Ibid, p. 100. Large transactions have to be settled in part through checking accounts in order to reduce note circulation.
This source states that one billion Leva at the maximum was required for the exchange of Leu, Dinar, and Drachma currency in the acquired territories in 1940-41. Ibid, pp. 92-93.

[2] Balkan Press Review, Bulgaria, Economic No. 68. Another source states that from 1939 to December 1943, note circulation increased 700 percent, checking accounts at private banks by 220 percent, saving deposits by 68 percent, and postal saving accounts by 180 percent. Suedost Echo (7 January 1944) p. 14.

[3] Zeitschrift der Bulgarischen Volkswirtschaftlichen Gesellschaft (1942) p. 51.

If the Bulgarian farmers should lose confidence in the Lev, the possibilities of obtaining goods from Bulgaria are greatly reduced. The peasants, simply by shifting from industrial to subsistence crops, can easily conduct a set-down strike against the administrators of the territory.

In view, however, of the Bulgarian government's record of war financing, particularly the large amount of funds which it has extracted from the economy by taxation and by sales of goods and services by public enterprises, the monetary and credit situation in Bulgaria is not hopeless provided that disintegration does not occur in the process of changing from German to Allied control.

C. Pre-war Foreign Capital in Bulgaria

Bulgaria's pre-war foreign debts are enormous relative to her income,[1] and as Table 13 indicates, about 30 percent of the paid-in-share capital of Bulgarian industrial, credit, and banking enterprises is of foreign origin. Two problems arise: first, the matter of establishing priorities on Bulgaria's income available for meeting her foreign obligations must be settled. This problem cannot be discussed here. The second problem concerns the removal of German, Hungarian, and perhaps Italian influence from Bulgaria's economy. It may also be to Bulgaria's advantage if ownership of Bulgarian industry is vested with the claimants on reparations account. These claimant countries will have an added incentive, therefore, to provide directly essential raw materials or permit Bulgarian manufacturers to obtain such materials on the world market. If the latter possibility is realized, Bulgaria will again become an active participant in triangular trade.

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[1] Moody's Governments estimates foreign debt service on all Bulgarian government obligations at 1.1 billion Leva annually. In addition Bulgaria has outstanding the reparation liabilities of the first World War. The reparation liability assumed by Bulgaria under the Treaty of Neuilly (1919) amounted to 2,250 million gold francs. The Inter-Allied Commission in 1923 with the consent of the Bulgarian government provided that 25 percent of the amount was to be funded and was to be discharged by 1 April 1983. Consideration of the remaining 25 percent of the reparation debt was postponed until 1 April 1953.

At the Hague Conference in January 1930, the total amount of Bulgaria's reparation liability was reduced to 550 million gold francs and this sum in turn was reduced to 171.6 million gold francs which was to be discharged in graduated semi-annual annuities extending from 1 April 1930 to 31 March 1966. In addition, Bulgaria was freed from further liability on the unpaid portion (10 million gold francs) of her occupation debt. At official gold parity rates Bulgaria's annual payment in 1944 would be 307.2 million Leva. Leo Pasvolsky, Bulgaria's Economic Position Washington, 1930. Ch. IV.

VI. CONCLUSION

As indicated in Table 4, the potential annual surplus in income in Bulgaria in the post-hostilities period will amount to approximately 50-55 million 1944 dollars. Examination of foreign trade statistics indicate that, aside from difficulties in effecting internal transfers, Bulgaria may be able to export annually a net amount of approximately 27,400,000 1944 dollars of commodities. Bulgaria's exportable surplus of unskilled laborers has not been included in this estimate.

An examination of Bulgaria's handling of war financing indicates that inflationary influences are operative and that the government will have to continue a workable fiscal, monetary, and price-control policy at a time when the forces of disintegration, heightened by military defeat, are at work. The situation within Bulgaria, however, is not hopeless.

Since the margin between Bulgaria's estimated surplus income and her net exportable surplus is about 25,000,000 1944 dollars, it is evident that the volume of production must be maintained and the government must have an extremely efficient method of obtaining the income produced in excess of consumption requirements. The experience of defeated countries in this war encourages one to take full account of the disruptive influences which continue to operate in the economies of Axis nations long after the Germans have been rooted out. If full scale economic activity can be quickly resumed within the territories of prewar Bulgaria, it may be concluded that the probable capacity of Bulgaria to transfer goods out of current income to the recognized claimants will be between 20,000,000 and 25,000,000 million 1944 dollars.

TABLE 1

ESTIMATED NATIONAL INCOME OF BULGARIA, 1926-1941

YEAR	LEVA (In Billions)	1939 DOLLARS (In Millions)	ESTIMATED POPULATION	INCOME PER CAPITA (In 1939 Dollars)
1926	46.4	368.6	5,423,400	68
1928	56.5	408.7	5,586,500	73
1929	56.2	381.7	5,659,500	67
1930	48.6	406.7	5,733,400	71
1931	44.6	452.7	5,808,200	78
1932	39.2	442.8	5,884,100	75
1933	35.6	461.4	5,960,900	77
1934	34.6	433.0	6,038,800	72
1935	36.6	450.3	6,102,000	74
1936	38.6	468.2	6,154,100	76
1937	40.6	436.4	6,207,300	70
1938	42.6	442.0	6,252,600	71
1939	44.6	454.9	6,290,200	72
1940	50.0	445.0	6,705,200	66
1941	75.0	527.6	8,662,000	61

SOURCES: National income estimates 1926-35 cited by Colin Clark, Conditions of Economic Progress (London 1940) p. 173. Estimates for 1940 and 1941 from Svedost Echo, 17 January 1941 and 1 July 1942. Estimates 1936-40 based on Zeitschrift der Bulgarischen Volkswirtschaften Gesellschaft (1942) p. 51.

For the method of converting Leva to 1939 dollars, see Appendix B.

Population estimates 1926-1939 from Annuaire Statistique du Royaume de Bulgarie (Sofia 1940) p. 21. 1940 and 1941 estimates based on OSS information.

TABLE 2

ESTIMATED ANNUAL BULGARIAN WAR EXPENDITURES AND NET CONTRIBUTIONS TO THE GERMAN WAR ECONOMY

YEAR	ESTIMATED WAR a/ EXPENDITURES (In Millions of Leva)	ESTIMATED NET b/ CONTRIBUTION TO GERMAN WAR FINANCING (In Millions of Leva)	TOTAL (In Millions of Leva)	TOTAL IN 1939 DOLLARS (Millions)	PERCENT OF c/ ESTIMATED NATIONAL INCOME
1935	1204.2		1204.2	14.82	3.29
1936	1584.3		1584.3	19.22	4.11
1937	2143.3		2143.3	23.04	5.28
1938	2247.6		2247.6	23.32	5.28
1939	2961.2	950.0	3911.2	39.89	8.77
1940	3152.0	1512.0	4664.0	55.90	9.33
1941	4712.5	6300.0	11012.5	77.47	14.68
1942	7169.0	4300.0	11469.0	64.45	---
1943	9164.0	7200.0	16364.0	71.95	---
			56238.1	389.02	8.98 d/

a/ Source: Defense expenditures for the period 1935-39 taken from Annuaire Statistique du Royaume de Bulgarie (1940) p. 640. Estimates of expenditures on the military establishment, 1940-1943, related to changes in strength of army. Adjustments were made for imported armaments, largely from Germany, which already appear in the estimates of net contributions to Germany (Column 3).

b/ Source: Federal Reserve System, Division of Res. and Stat., Germany: Foreign Contributions to German War Financing (August 1944) pp. 34-35.

c/ For estimate of national income, see Table 1.

d/ For the period of 1935-1941 only.

Table 4. ESTIMATED INCOME PRODUCING CAPACITY IN BULGARIA OF RESOURCES RELEASED FROM BULGARIA'S WAR EFFORT IN 1940 PLUS REDUCTION IN CONSUMPTION OF MEN RELEASED FROM ARMY
(In thousands of Leva)

	Physical Quantity	Estimated Value Productivity	Estimated Income Producing Capacity
(a) Laborers employed directly or indirectly by Germans	75,000	12,000	900,000,000
(b) Laborers returned from Germany	15,000	5,600	84,000,000
(c) Discharged Bulgarian soldiers			
(1) Regular army strength in 1940 less 25,000 for militia	141,000	12,000	1,692,000,000
(2) Reserves	83,000	5,000	415,000,000
(d) Foodstuffs and materials supplied German technicians in Bulgaria			100,000,000
(e) Net export balance of goods and services shipped to countries other than Germany in 1940			229,000,000
Total income producing capacity in leva			3,420,000,000
Estimated reduction in consumption of goods following the discharge of men from the army (Appendix C)			582,400,000
Total income available above consumption requirements as of 1940[a]			4,002,400,000
Expressed in 1944 dollars[b]			47,974,150

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[a] Stated in terms of the 1940 value of the Lev.

[b] For method of conversion, see Appendix B.

COMMENTS ON Table 4.

(a) The number of laborers employed in Bulgaria by German technicians is estimated from data on the magnitude of Bulgaria's contribution to Germany in 1940. Information was also obtained from FEA, Special Areas Branch, Manpower and Population in Enemy Europe. (July 1944).

Probable value productivity in Bulgaria was estimated as follows: from Table 1, per capita national income in 1940 was almost 7,000 Leva per year. Almost 60 percent of Bulgaria's population was gainfully employed in that year, hence the average annual output per gainfully employed person in that year was almost 12,000 Leva. Annual output was considerably higher in industry. Owing to raw material scarcities, however, employment opportunities in Bulgaria's industry will be severely restricted.

The effects on output resulting from crowding workers on the land is neglected. In the estimates of necessary import requirements, the value of imports of agricultural machinery and tractors is held at the 1939 level.

(b) Approximately 15,000 Bulgarian workers were in Germany. It is assumed that these workers will return to Bulgaria and produce income equivalent to 12,000 Leva annually. According to the computation in Appendix C, however, about 6,400 Leva will be required to support these workers. Hence their net contribution is 5,600 Leva annually.

(c) Strength and composition of Bulgarian army based on OSS estimates. Regular army men usually serve full time. Reserves were frequently released in the Spring and Fall. Hence, the reserves contributed to national output in 1940. Their increased productivity will not be more than 5,000 Leva.

(d) The value of foodstuffs and materials supplied to German technicians and agents in Bulgaria in 1940 is based upon an estimate of their numbers (5,000) together with reports on their activities in 1940.

The method of estimating the extent to which the consumption of goods can be reduced in Bulgaria by demobilizing the army is set forth in Appendix C.

Table 5. BULGARIA'S FOREIGN TRADE, 1930-1942

(In million of Leva)

Year	Exports	Imports	Balance
1930	6,191	4,590	+ 1,601
1931	5,934	4,660	+ 1,274
1932	3,383	3,471	- 88
1933	2,846	2,202	+ 644
1934	2,535	2,247	+ 288
1935	3,253	3,009	+ 244
1936	3,910	3,181	+ 729
1937	5,019	4,926	+ 93
1938	5,578	4,934	+ 644
1939	6,065	5,197	+ 868
1940	7,020	7,028	- 8
1941	9,230	10,240	- 1,010
1942	13,420	12,930	+ 490
Balance 1930-1939			+ 6,297[a]
Balance 1930-1942			+ 5,769

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a. Foreign debt service, is estimated to accrue at the rate of 1,121 million Leva annually. Moody's Governments (1944) p. 1706.

Source: CID No. 47804 for period 1930-39
Bulgaria, Basic Handbook. Part II, p. 40 for period 1940-42.

Table 6

BULGARIA'S PRINCIPAL EXPORTS BY COMMODITIES, 1936, 1938 and 1939

(In millions of Leva)

	1936	Percent of Total	1938	Percent of Total	1939	Percent of Total
Tobacco	1,269	32.46	2,364	42.38	2,486	40.99
Sugar and colonial produce	4	.10	22	.39	5	.08
Fruits, vegetable, oilseeds	607	15.52	1,122	20.11	1,363	22.47
Fresh grapes	191	4.88	554	9.93	461	7.60
Other fruits and nuts	198	5.06	596	10.68	668	11.01
Vegetables			30	.54		
Oilseeds	161	4.12	78	1.40	212	3.50
Cereals	675	17.26	582	10.43	468	7.72
Wheat	331	8.47	361	6.47	443	7.30
Corn	153	3.91	151	2.71		
Beans	94	2.40	22	.40		
Animal produce for food	763	19.51	753	13.50	660	10.88
Eggs	466	11.92	437	7.83	512	8.44
Poultry, dead	145	3.71	119	2.13	78	1.29
Hides and skins	172	4.40	173	3.10	168	2.77
Lambskins	92	2.35	78	1.40	88	1.45
Tanned skins			70	1.25	62	1.02
Livestock	87	2.23	200	3.59	110	1.81
Oxen and calves	36	.92	41	.74		
Swine			126	2.26	78	1.29
Vegetable and animal waste	124	3.17	135	2.42	117	1.93
Oilcake	89	2.25	97	1.74	71	1.17
Essential oils	54	1.38	83	1.49	97	1.60
Attar of roses			57	1.02		
Other	155	3.96	144		591	9.74
Total	3,910	100.0	5,578	100.0	6,065	100.0

Source: Bulgaria Basic Handbook (1943) Part II, pp. 37-40

Table 7

BULGARIA'S EXPORTS BY COUNTRIES, 1936-40
(In Million Leva)

Country of Destination	1936 Leva	1936 %	1937 Leva	1937 %	1938 Leva	1938 %	1939 Leva	1939 %	1940 Leva	1940 %
Germany	1,860	47.6	2,163	43.1	3,284	58.9	4,110	67.8	4,152	59.2
Italy	142	3.6	211	4.2	422	7.6	367	6.1	632	9.0
C.S.R. (Protectorate)	128	3.3	279	5.6	255	4.6	202	3.3	227	3.2
Austria	116	3.0	202	4.0	-	-	-	-	-	-
England	454	11.6	695	13.8	267	4.8	188	3.1	147	2.1
Egypt	90	2.3	95	1.9	96	1.7	62	1.0	42	0.6
Switzerland	84	2.1	112	2.3	99	1.8	100	1.6	282	4.0
Hungary	45	1.2	46	0.9	70	1.3	119	2.0	265	3.8
Poland	146	3.7	233	4.7	318	5.7	228	3.8	-	-
Palestine	43	1.1	74	1.5	27	0.5	19	0.3	13	0.2
Denmark	113	2.9	109	2.2	113	2.0	79	1.3	52	0.7
Holland	101	2.6	109	2.2	94	1.7	53	0.9	10	0.1
U.S.A.	101	2.6	192	3.8	190	3.4	206	3.4	133	1.9
Russia									320	4.6
Other										
Total	3,910	100.0	5,019	100.0	8	100.0	6,065	100.0	7,019	100.0

Source: Compass, (1943) p. 72

Table 8. BULGARIA: ESTIMATED VALUE OF EXPORTS FOR 1945-46
(In millions of 1939 Leva)

	1945-46
Tobacco	2400
Sugar and colonial produce	5
Fruits, vegetables, and oilseeds:	
Fresh grapes	400
Other fruits and nuts	500
Vegetables	110
Oilseeds	175
Cereals:	
Wheat	400
Corn	50
Beans	25
Other	25
Animal produce for food:	
Eggs	500
Poultry, dead	250
Other	50
Hides, skins:	
Lambskins	90
Tanned skins	70
Other	25
Livestock:	
Oxen and calves	35
Swine	50
Other	25
Vegetable and animal waste:	
Oilcake	70
Other	30
Essential oils	90
Other products	150
Total	5525

Table 9. BULGARIA'S PRINCIPAL IMPORTS BY COMMODITIES, 1936, 1938, and 1939
(In millions of Leva)

	1936	Percent of total	1938	Percent of total	1939	Percent of total
Machinery and allied products	524	16.5	1127	22.8	1373	26.4
Metals and manufactures	659	20.7	1146	23.2	1015	19.5
Textiles	783	24.6	970	19.7	793	15.3
Vehicles	251	7.9	226	4.6	438	8.4
Mineral oils, petroleum	111	3.5	199	4.0	284	5.5
Chemicals	111	3.5	195	4.0	194	3.7
Hides, skins, leather products	104	3.3	155	3.1	123	2.4
Dyes and tans	126	4.0	144	2.9	138	2.7
Paper and paper products	93	2.9	113	2.3	141	2.7
Pharmaceutical products	67	2.1	102	2.1	109	2.1
Earth-stone manufactures	60	1.9			101	1.9
Vegetable oils and waxes	59	1.8			59	1.1
Rubber manufactures	45	1.4			67	1.3
Other	188	5.9	557	11.3	362	7.0
Total	3181	100.0	4934	100.0	5197	100.0

Source: Bulgaria Basic Handbook. Part II, pp. 37-38.

Table 10. BULGARIA'S IMPORTS BY COUNTRIES, 1936-40
(In millions of Leva)

Country of origin	1936		1937		1938		1939		1940	
	Leva	Percent	Leva	Percent	Leva	Percent	Leva	Percent	Leva	Percent
Germany	1940	61.0	2732	54.8	2563	52.0	3403	65.5	4889	69.6
Czechoslovakia (later on: Protectorate)	244	7.7	249	5.0	291	5.9	210	4.1	320	4.6
Austria	181	5.7	170	3.4	--	--	--	--	--	--
Switzerland	67	2.1	118	2.4	107	2.2	95	1.8	127	1.8
England	146	4.6	233	4.7	348	7.1	144	2.8	157	2.2
Italy	19	0.6	247	5.0	370	7.5	357	6.9	467	6.6
Rumania	99	3.1	144	2.9	173	3.5	207	4.0	127	1.8
France	39	1.2	165	3.3	182	3.7	62	1.2	44	0.6
USA	69	2.2	104	2.1	134	2.7	120	2.3	127	1.8
Belgium	48	1.5	213	4.3	35	0.7	14	0.3	12	0.2
Poland	93	2.9	216	4.3	276	5.6	297	5.7	2	0.0
Russia	}		}		}		}		303	2.9
Others										
Total	3181	100.0	4986	100.0	4934	100.0	5197	100.0	7025	100.0

Source: Compass (1943) p. 72.

Table II. BULGARIA: ESTIMATED VALUE OF IMPORTS, 1945-46
(In millions of 1939 Leva)

Machinery	769
Industrial machinery	400
Agricultural machinery and tractors	113
Electrical products	111
Others	145
Metals	882
Railway material	175
Iron and steel shapes	240
Semi-fabricated iron and steel	250
Fabricated iron and steel products	60
Tinplate	40
Copper and copper products	60
Other nonferrous metals	47
Others	10
Textiles	635
Raw cotton and cotton yarns	375
Cotton piece goods	100
Combed wool	75
Others	85
Vehicles	105
Automobiles and motor chassis	45
Automobile parts	11
Rolling stock	35
Others	14
Mineral oils	150
Petroleum and products	120
Others	30
Chemicals	144
Copper sulphate	75
Soda and caustics	20
Sulphuric acid	4
Disinfectants and others	45
Dyes and tans	105
Aniline dyes	60
Others	45
Hides, skins and leather products	105
Hides and skins	97
Leather products	8
Paper and paper products	80
Pharmaceuticals	80
Rubber products	45
Others	60
Total	3160

Table 12. NATIONAL DEBT OF BULGARIA, 1939-43
(in millions of Leva)

	1939	1940	1941	1942	1943
Foreign debt[a]	12690.8	12610.2	12604.3	12311.2	
Domestic debt					
Funded	5942.9	5858.8	5920.2	14021.7	
Floating	4230.0	7531.2	11046.5	14441.7	
Total	10172.9	13390.0	16966.7	28463.4	
Total National Public debt	22863.7	26000.2	29571.0	40774.6	53000[b]

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a Bulgaria's foreign debt, expressed in the currency units of the lending nations, was converted at the official rate of 92 Leva equal 1 gram pure gold.

b Estimate of national debt as of July 1943

Sources: League of Nations. Statistical Yearbook 1941-42, p. 249, and Monthly Bulletin of Statistics (July 1944) p. 221.

Table 13. FOREIGN CAPITAL REPRESENTED IN THE PAID-IN-CAPITAL ACCOUNT OF BULGARIAN COMPANIES
(In millions of Leva)

Nationals of	1941		1939		Types of industrial enterprises
	Total-all companies	Industrial companies	Total-all companies	Industrial companies	
Italy	338.8	276.6	273.4	a	Textile companies
Germany	245.6	110.5	183.2		Mining, chemical, electric power
Czechoslovakia	123.8	83.4	54.5		Sugar refinery
Hungary	3.0	a	15.6		
France	128.5	93.1	130.3		Silk and wool
Sweden	46.0	46.0			Electric power
Belgium	a	a	180.7		Electric power and woolen mills
England	a	a	22.5		Zlata gold mine
United States	a	a	219.8		
All foreign[b]	1220.0	679.7	1144.9		
Total domestic share capital accounts	a	3020	3985	3098	

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a Not known.

b As given in the sources.

Sources: 1941 information from Suedost Echo (4 February 1944) p. 9.
1939 information from Compass (1943) pp. 81-82.

Appendix A

INVENTORY OF BULGARIA'S STOCK OF PORTABLE CAPITAL GOODS [1]

	Date of Estimate	
1. Gold	February 1943	61310 pounds [1] ($35,000,000, approx.)
2. Vehicles	1939	2496 commercial 2314 cars and taxis
3. Railroad rolling stock	1939	(owned by Bulgarian Government)

	Standard Gauge	Narrow Gauge
Locomotives	482	111
Coaches	589	120
Vans	245	50
Covered freight cars	4256	141
Open freight cars	5083	840
Special and privately owned	244	333

4. Merchant shipping May 1943 estimates

Number	Size of Vessel	GRT.
3	100-500	593
1	501-1000	706
2	1001-2000	3102
2	2001-3000	5082
1	30001-up	3838

5. Inland Waterways craft Fall 1942

(a) Owned by Bulgarian Danubian Shipping Co. (government corporation)

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[1] Sources: Bulgaria Basic Handbook Part II and CID 47804. As of 15 February 1943 the Bulgarian National Bank listed its gold holdings at 2,558 million Leva. By the law of

5. (a)

Number	Type
3	Passenger steamers
12	Motor and steam tugboats
5	Motorized cargo vessels
27	Barges
1	Dredger (156 GRT)

Total capacity -- 28,425 GRT

(b) Privately owned

4	Steam vessels (700 GRT each)
3	Passenger steamers
4	Tankers

	Date of Estimate	
6. Telephone stations (Manufactured and serviced by Siemens and Halske)	1940	30-35,000
7. Broadcasting equipment (One station of 100 KW capacity, installed by Telefunken, 1937)	1940	6 stations

8. Livestock Census 1934

(a) Horses	532,000
(b) Asses	181,000
(c) Water buffaloes	375,000
(d) Cattle	1,498,000
(e) Sheep	8,839,000
(f) Goats	913,000
(g) Pigs	902,000
(h) Poultry	11,774,000

1/ November 1928 and which was in effect in 1943, 92 Leva equal 1 gram of pure gold. Consequently, the National Bank should have 27,805 kilograms or 61,310 pounds of pure gold. At $35 per oz. Bulgaria's gold stock is appraised at slightly more than $35,000,000.

Appendix B

CONVERSION OF LEV STATISTICS INTO TERMS OF 1939 DOLLARS

The conversion of Lev figures into terms of 1939 dollars involved two steps:

(1) The conversion of annual Lev figures into terms of 1939 dollars was done by the use of the wholesale price index in Table B-1.

(2) The conversion of 1939 Leva into 1939 dollars was done at a price parity rate of 1 Lev = 1.02 cents.

The price parity rate was calculated as follows:

(1) According to Colin Clark,[1/] at the 1929 gold parity of 1 Lev = .7224 cent, the "general price level" in Bulgaria during the period 1925-34 averaged 66 percent of that in the United States in the same period. This means that in the period considered, the price parity was:

1 Lev = (.7224/.66) cent = 1.094 cents.

(2) In 1939 wholesale prices in Bulgaria were 97.17 percent of the 1925-34 average,[2/] while wholesale prices in the United States were 90.4 percent of the 1925-1934 average.[3/] Hence the 1939 price parity is taken to be:

$$1 \text{ Lev} = 1.094 \text{ cents} \times \frac{90.40}{97.17} = 1.02 \text{ cents.}$$

Units of accounting expressed in Leva have been translated, in terms of price parity, into 1939 dollars.

[1/] Colin Clark, Conditions of Economic Progress (London 1940) p. 36, 40. See also R&A No. 2127, where the same procedure was followed.

[2/] Computed from figures in Table B-1

[3/] Figures from the US Bureau of Labor Statistics as published in League of Nations, Statistical Year Book. (Annual volumes)

The 1944 dollar units can be obtained from 1939 dollar units in two steps.

(1) Obtain the 1944 United States wholesale price index of wholesale prices in terms of 1939 = 100.[1/]

(2) Adjust 1939 dollar units by the change in the United States wholeprice index between 1939 and 1944.

The result would be the same had 1944 been adopted as the base year and Lev units been converted into 1944 dollar units according to the procedure outlined in the first part of this appendix.

[1/] The wholesale price index for all commodities prepared by the Bureau of Labor Statistics was used. The average of wholesale prices for the first six months of 1944 was used. Federal Reserve Bulletin (August 1944) p. 818. The figure 134.67, with 1939 equal 100, was taken as the wholesale price index for the first six months of 1944.

Table B-1

CHANGES IN BULGARIAN WHOLESALE PRICES, 1925-1943 [a]

(1939 = 100 percent)

Year	Index	Year	Index
1925 b/	143.0	1934	81.5
1926	128.4	1935	82.9
1927	131.4	1936	84.1
1928	141.0	1937	94.7
1929	150.2	1938	98.3
1930	121.9	1939	100.0
1931	100.5	1940	114.6
1932	88.0	1941	145.0
1933	78.7	1942	181.5
		1943	232.0 c/

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a/ Sources: League of Nations, Statistical Year Book Volumes 1936-37, p. 228; 1939-40, p. 206, 1940-41, p. 194. League of Nations, Monthly Bulletin of Statistics. (July 1944) p. 205.

b/ Computed from wholesale price index in CID 47804, p. 7

c/ As of July 1943

Appendix C

ESTIMATED AMOUNT OF INCOME CONSUMED PER CAPITA IN BULGARIA'S CIVILIAN ECONOMY AND IN THE BULGARIAN ARMY, 1940

The amount of goods and services consumed by a man on active military duty is usually much greater than the amount consumed as a civilian. Consequently, for purposes of estimating the income available above consumption requirements in pre-war Bulgaria, it is necessary to take into account the relative amounts of income consumed on the average by each civilian and each man on military duty. The following tabulation indicates that consumption per head in the Bulgarian civilian economy in 1940 was 6,400 Leva, and for each man on active military duty 9,000 Leva.

	Leva
1. Average amount of income consumed per head in the civilian economy in 1940	
a. Total national income	50.0 billion
b. Less government expenditures adjusted for disbursements to dependents of men on active military duty. (9.2 billion less .448 billion Leva) see 2c below	8.8 billion
	41.2 billion
c. Add net merchandise import balance	.8 billion
d. Income available for private consumption and saving	42.0 billion
e. Estimated income actually consumed[1]	40.0 billion
f. Estimated population less those obtaining income from army, other agencies and Germans	6,270,000
g. Consumption per head in civilian economy	6,400 Leva
2. Estimated income actually consumed by each man in Bulgarian army, 1940	
a. Overall average annual expenditure per man for maintenance, support of dependents, and general equipment. Based on 1939 data	12,000
b. Less estimated payment by War Ministry to dependents	2,000
c. Less estimated payments per man/year for land, officers' wages unspent, etc.	1,000
d. Annual consumption per man/year	9,000
3. Difference between Items 2 and 1	2,600
4. Income released by depressing standard of consumption of 224,000 men discharged from army	582,400,000

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[1] Owing to a growing scarcity of industrial raw materials, very little capital construction took place in Bulgaria during 1940.